

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus for displaying a three-dimensional image, which synthesizes ~~multiple~~ at least three two-dimensional microimages of a scene and regenerates them in a three-dimensional image of the scene, the apparatus comprising:

a detector for tracing movement of an observer head that observes the three-dimensional image, in real time and detecting a position of the observer head; and

a compensator for adjusting a viewing zone of the three-dimensional image that is synthesized from the at least three two-dimensional microimages and/or compensating distortion of the said three-dimensional image by manipulating the at least three microimages in accordance with a signal input from the detector.

2. (Previously Presented) The apparatus of claim 1, wherein the detector comprises a head tracking system which traces movement of the observer head in real time, and a head position detector for calculating the position of the observer head traced by the head tracking system.

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3. (Currently Amended) The apparatus of claim 1, wherein the compensator comprises either a viewing adjust engine which adjusts the viewing zone of the three-dimensional image by moving the at least three microimages in accordance with a signal input from the head position detector, or a device which regenerates the ~~multiple~~ at least three microimages of the scene in accordance with the signal input from the head position detector to compensate distortion of the three-dimensional image.

4. (Currently Amended) An apparatus for displaying a three-dimensional image, comprising:

a plurality at least three of two-dimensional microimages of a scene;

a microlens array for synthesizing the at least three two-dimensional microimages and regenerating them in a three-dimensional image of a scene;

a head tracking system for tracing movement of an observer head that observes the three-dimensional image, in real time;

a head position detector for calculating a position of the observer head traced by the head tracking system; and

a viewing adjust engine for adjusting a viewing zone of the three-dimensional image by moving the at least three microimages in accordance with a signal input from the head position detector.

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5. (Currently Amended) The apparatus of claim 4, further comprising a device which regenerates the at least three microimages of the scene in accordance with the signal input from the head position detector to compensate distortion of the three-dimensional image.

6. (Previously Presented) The apparatus of claim 5, wherein the regenerated microimages are movable by the viewing adjust engine to form a new viewing zone centered relative to the moved observer head .

7. (Currently Amended) An apparatus for displaying a three-dimensional image, comprising:

a plurality of at least three two-dimensional microimages of a scene;
a microlens array for synthesizing the at least three two-dimensional microimages and regenerating them in a three-dimensional image of a scene;
a head tracking system for tracing movement of an observer head that observes the three-dimensional image, in real time;
a head position detector for calculating a position of the observer head traced by the head tracking system; and
a device for regenerating the at least three microimages of the scene in accordance with a signal input from the head position detector to compensate distortion of the three-dimensional image.

8. (Previously Presented) The apparatus of claim 7, further comprising a viewing adjust engine for adjusting a viewing zone of the three-dimensional image by moving the regenerated microimages of the scene to form a new viewing zone centered relative to the moved observer head, in accordance with a signal input from the head position detector and the device for regenerating the microimages.

9. (Currently Amended) A method for displaying a three-dimensional image of a scene, which is generated by synthesizing ~~multiple at least three~~ two-dimensional microimages of the scene and regenerating the ~~microimage at least three microimages~~ as the three-dimensional image, the method comprising the steps of:

tracing movement of an observer head that observes the three-dimensional image;
calculating a position of the traced observer head; and
adjusting a viewing zone of the three-dimensional image and/or compensating distortion of the three-dimensional image ~~by manipulating the at least three microimages~~, in accordance with the calculated position of the observer head.

10. (Currently Amended) The method of claim 9, wherein adjusting the viewing zone of the three-dimensional image comprises forming a new viewing zone centered relative to the moved observer head by moving the ~~at least three~~ two-dimensional microimages of the scene.

11. (Currently Amended) The method of claim 9, wherein compensating distortion of the three-dimensional image comprises regenerating the at least three two-dimensional microimages of the scene.

12. (Currently Amended) ~~An A~~ system for displaying a three-dimensional image of a scene that is generated via ~~multiple-~~ at least three two-dimensional images of the scene, comprising:

a detector that detects a position of an observer relative to the three-dimensional scene and outputs a position signal; and

a compensator that manipulates the at least three two-dimensional images of the scene in accordance with the position signal.

13. (Previously Presented) The system of claim 12, wherein the detector comprises a head tracking system.

14. (Currently Amended) The system of claim 12, wherein the compensator comprises a viewing adjust engine that adjusts a viewing zone of the three-dimensional image by moving the at least three two-dimensional images of the scene based on the position signal.

15. (Currently Amended) The system of claim 12, wherein the compensator comprises a device that compensates for distortion by regenerating the at least three two-dimensional images of the scene based on the position signal.

16. (Currently Amended) The system of claim 12, wherein the compensator comprises:

a viewing adjust engine that adjusts a viewing zone of the three-dimensional image by moving the at least three two-dimensional images of the scene based on the position signal; and

a device that compensates for distortion by regenerating the at least three two-dimensional images of the scene based on the position signal.

[[18]] 17. (Currently Amended) The system of claim 12, wherein the detector detects the position of the observer by tracking the observer's head.

[[19]] 18. (Currently Amended) A method of manipulating a three-dimensional image of a scene that is generated via ~~multiple~~at least three two-dimensional images of the scene, comprising:

determining a position of an observer of the three-dimensional image; and manipulating the at least three two-dimensional images of the scene based on the determined position of the observer.

[[20]] 19. (Currently Amended) The method of claim [[19]] 18, wherein the position of the observer is determined by tracking the observer's head.

[[21]] 20. (Currently Amended) The method of claim [[19]] 18, wherein the at least three two-dimensional images of the scene are moved based on the determined position of the observer so as to adjust a viewing zone of the three-dimensional image of the scene.

[[22]] 21. (Currently Amended) The method of claim [[19]] 18, wherein the at least three two-dimensional images of the scene are regenerated based on the determined position of the observer so as to compensate for distortion in the three-dimensional image of the scene.

[[23]] 22. (Currently Amended) The method of claim [[19]] 18, wherein the at least three two-dimensional images of the scene are manipulated by:

regenerating the at least three two-dimensional images of the scene based on the determined position of the observer so as to compensate for distortion in the three-dimensional image of the scene; and

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moving the at least three two-dimensional images of the scene based on the determined position of the observer so as to adjust a viewing zone of the three-dimensional image of the scene.